



LTI-Limno-Tech, Inc.
Memorandum

DRAFT 16882
0000002

TO: Jon F. DeWitt

DATE: September 2, 1988

FROM: Gregory Peterson

PROJECT: JD6-1

COPIES: Dave Hale, OBG
Bill Creal, MDNR

RE: 1988 Portage Creek Sediment Survey - ~~S~~ummary of PCB Distribution

This memorandum presents estimates of the vertical and areal distribution of PCBs in Portage Creek based on results from the 1988 Portage Creek Sediment Survey conducted cooperatively by Allied Paper, Inc. and the Michigan Department of Natural Resources. The distributions were estimated using Phase I, Phase II, and Phase III analytical results and are graphically presented in four attachments.

Figure 1 of Attachment 1 shows the Thiessen polygons that represent each station. PCB depth distributions are graphically depicted in Figures 2 through 6 which show the sediment depth to which the specified criteria is exceeded. Depths from 0 to 6 ft are represented by different patterns as depicted in the key at the top of each figure.

Attachment 2 contains fifteen figures which show the PCB depth profiles for 5 transects which include all stations. The shaded area of the profile represents the cross-sectional area that contains sediment with PCB concentrations exceeding the specified criteria of 5, 10, 25, 50 and 100 mg/kg. The profiles also contain topographical elevations that were estimated from the survey data.

Attachment 3 contains four figures which summarize the PCB concentrations versus depth for every station. The scale of each graph is 0 - 500 mg/kg for PCB concentration and 0 to 8 feet for depth. Attachment 4 presents the tabulated summary of the PCB concentration data. In addition, the presence of an oil odor is indicated for those samples where it was noticed. Attachment 4 also presents the soil characteristic summaries derived from the boring logs. The soil characteristics are further described in the LTI memorandum entitled "Bryant Pond Soil Characteristics Data" (9/2/88).

ATTACHMENT 1 - PCB Depth Distributions in Bryant Pond



Figure 2 Depth Distribution for Sediment with PCB Concentrations Exceeding 5 mg/kg

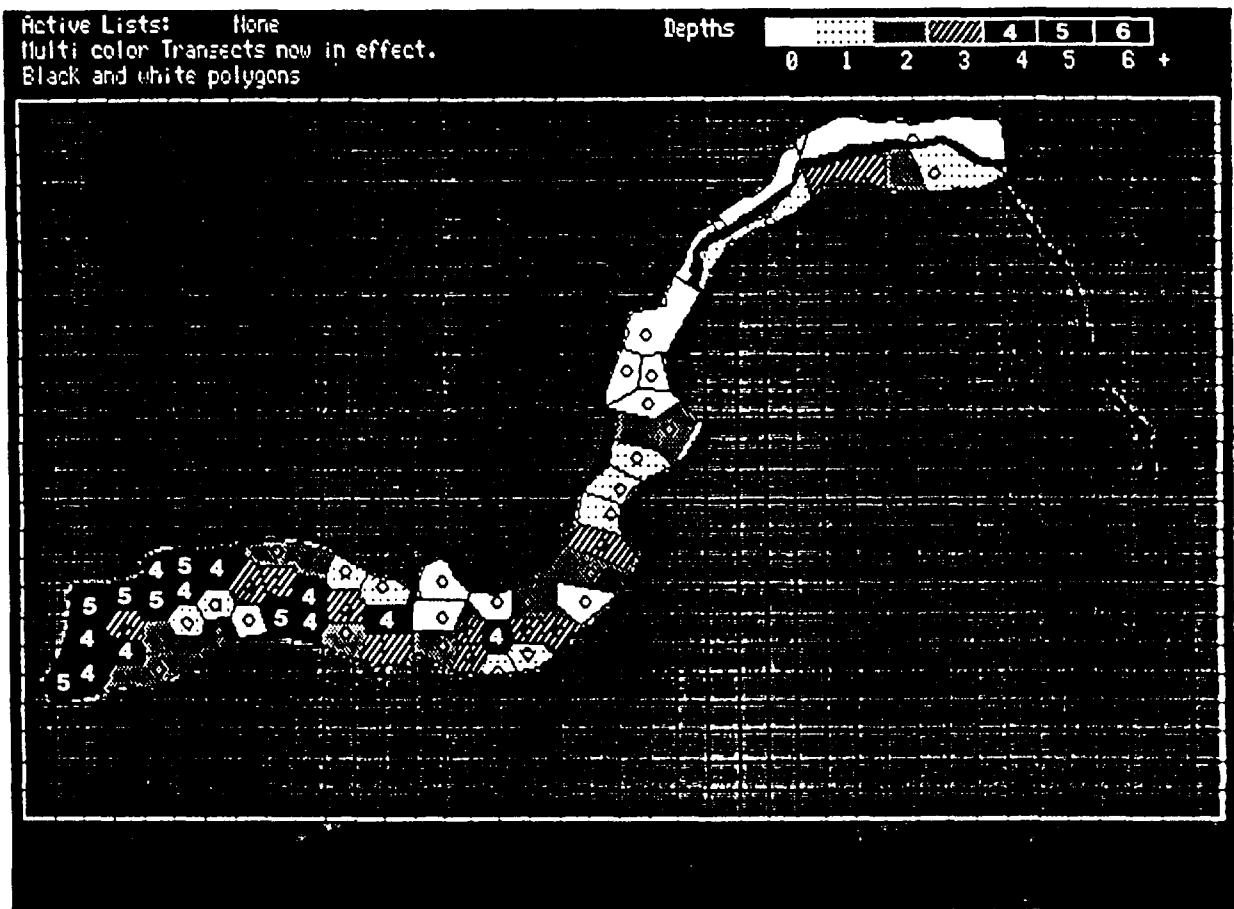


Figure 3 Depth Distribution for Sediment With PCB Concentrations Exceeding 10 mg/kg

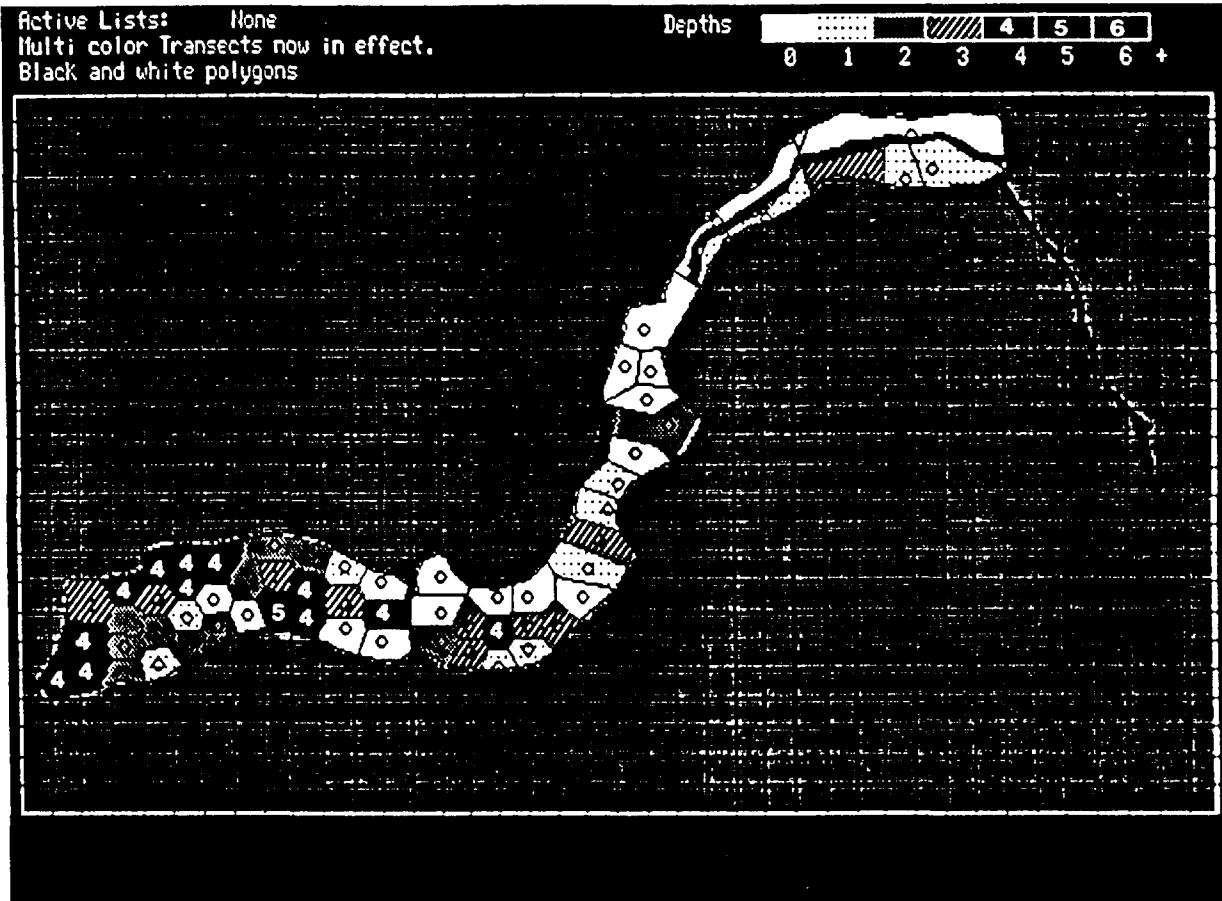


Figure 4 Depth Distribution for Sediment with PCB Concentrations Exceeding 25 mg/kg

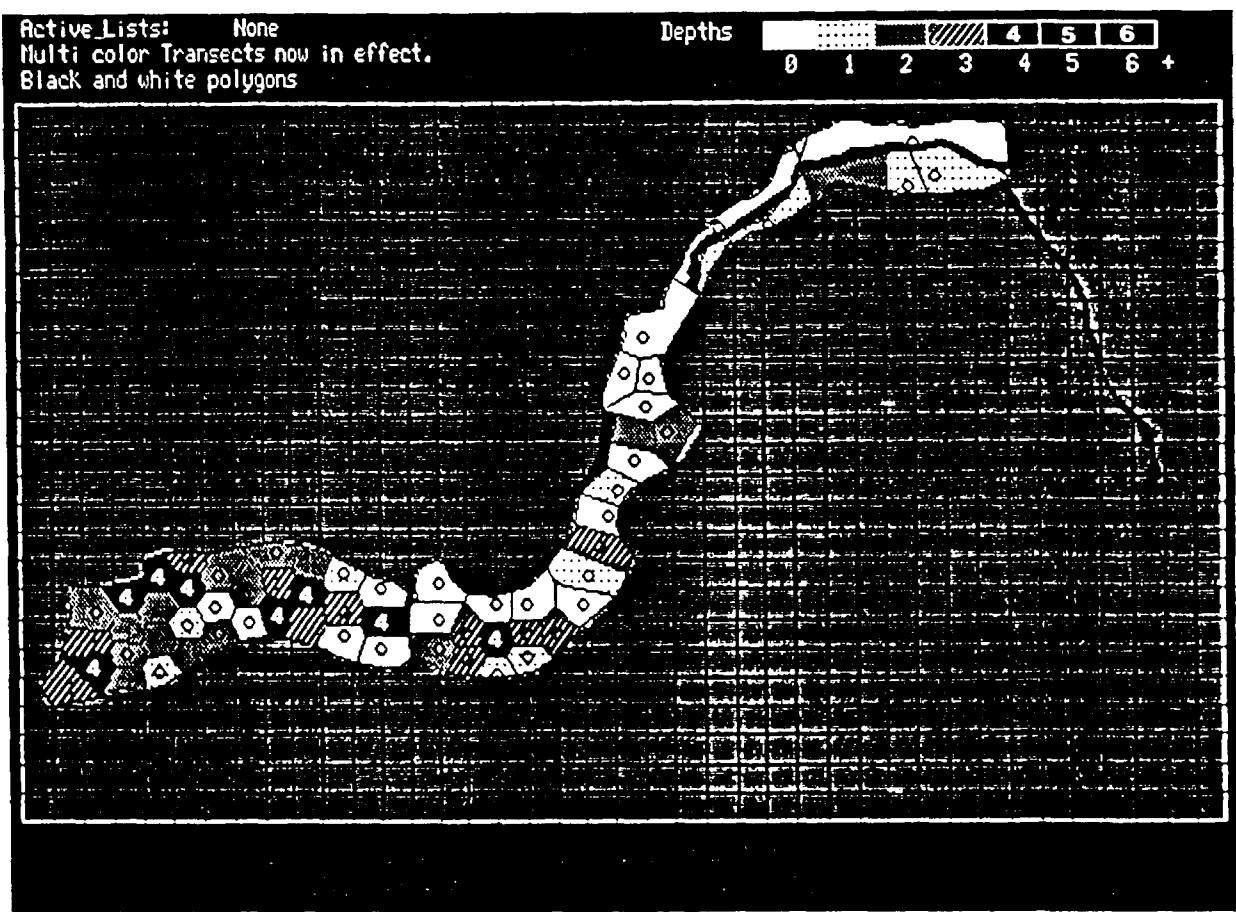


Figure 5 Depth Distribution for Sediment with PCB Concentrations Exceeding 50 mg/kg

Active Lists: None
Multi color Transects now in effect.
Black and white polygons

Depths

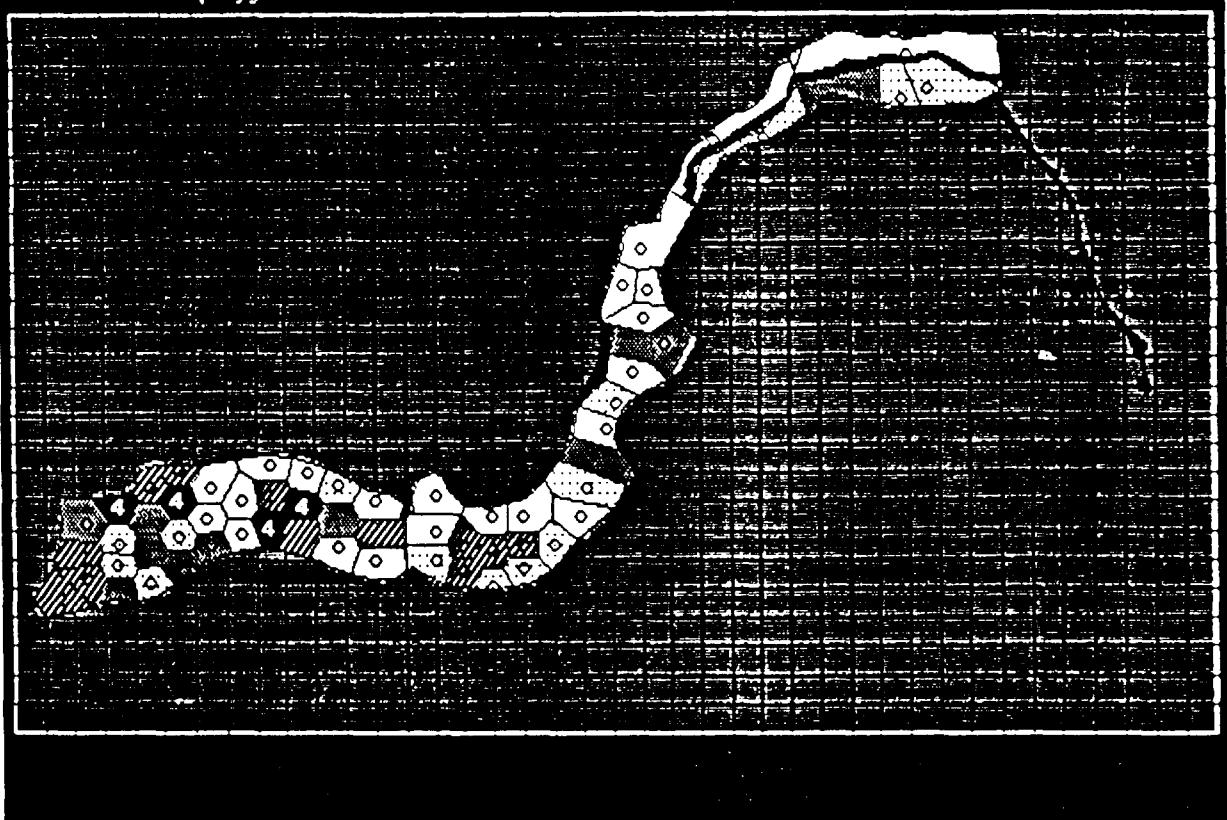


Figure 6 Depth Distribution for Sediment with PCB Concentrations
Exceeding 100 mg/kg

ATTACHMENT 2 - PCB Depth Profiles for Specified Transects

Feature List: None

Two transects now define

DETAILED

786.5
784.5
782.5
780.5
778.5
776.5
774.5
772.5

DEPTH PROFILE

SECTION 5 9 13 17 20 22 25 28 31 34 37 39 42 45 46 47 48 49 50 51 52 53 54 55

This criterion is 5.0

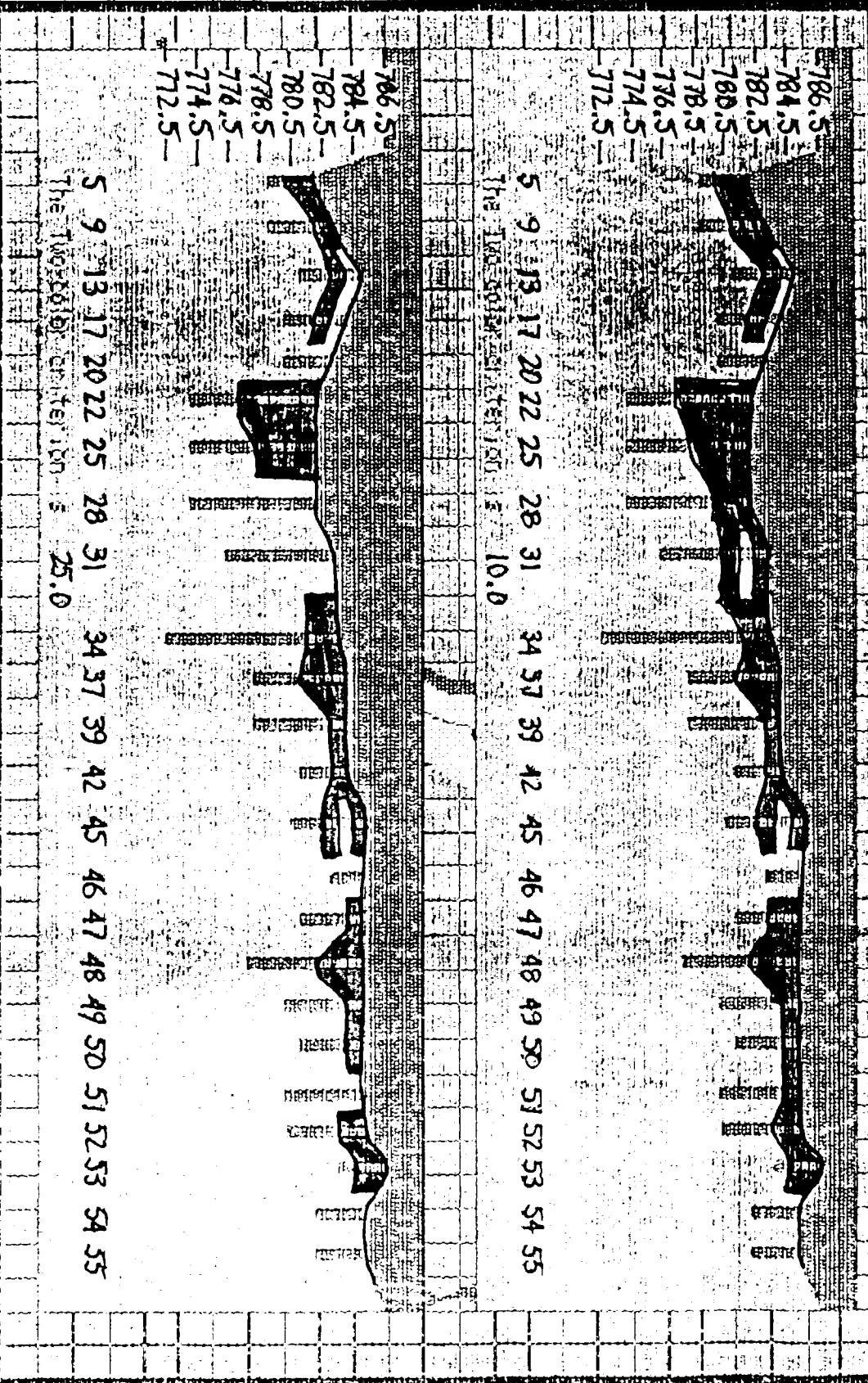
TRANSCT 7

TRANSCT

Active Lists: None
Two color Transsects now intersect
for polygons

5 9 13 17 20 22 25 28 31 34 37 39 42 45 46 47 48 49 50 51 52 53 54 55

10.0



5 9 13 17 20 22 25 28 31 34 37 39 42 45 46 47 48 49 50 51 52 53 54 55

The Transects Intersect at 10.0

10.0

the transects intersect at 10.0

Active Eustachian tube Note
Two locations transects now unaffected

Scale in meters

786.5
784.5
782.5
780.5
778.5
776.5
774.5
772.5

5 9 13 17 20 22 25 28 31 34 37 39 42 45 46 47 48 49 50 51 52 53 54 55

15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55

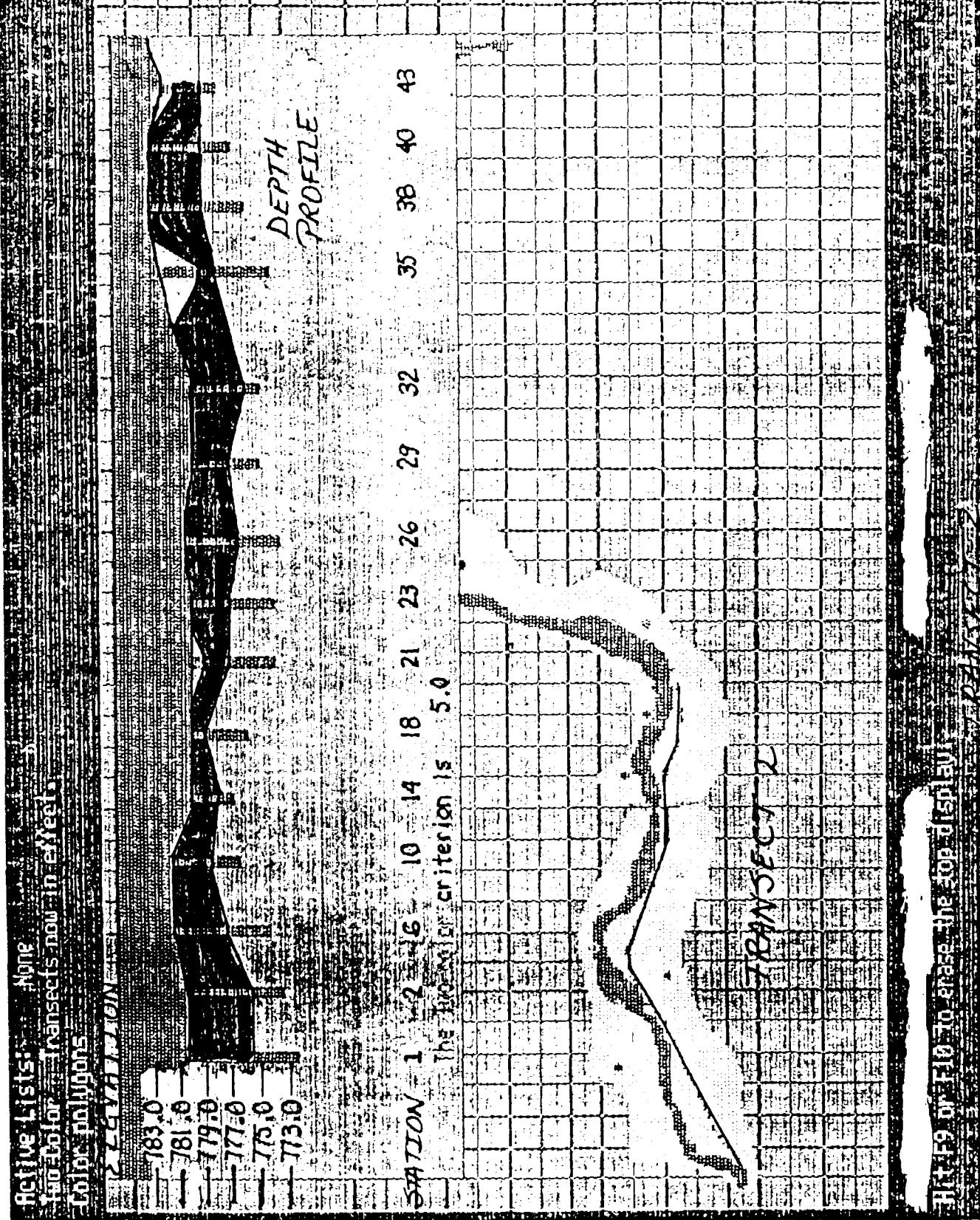
50.0

786.5
784.5
782.5
780.5
778.5
776.5
774.5
772.5

5 9 13 17 20 22 25 28 31 34 37 39 42 45 46 47 48 49 50 51 52 53 54 55

100.0

Hat F9 to erase the top of line 53



Active Lists: None
Two Color Transects now in effect
Color polygons

783.0
781.0
779.0
777.0
775.0
773.0

6 10 14 18 21 23 26 29 32 35 38 40 43

The 10.0% criterion is 10.0

783.0
781.0
779.0
777.0
775.0
773.0

2 6 10 14 18 21 23 26 29 32 35 38 40 43

The 25.0% criterion is 25.0

11/17 SEC 2 COAST

NOV 19 1981

None

Frequency of observation

Estimated

783.0

781.0

779.0

777.0

775.0

773.0

The top 20 criterion is 50.0

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43

The bottom criterion is 100.0

Active lists: None
Two factor Transects now in effect
Sediments dubious

780.5 781.5

779.5 777.5

775.5 773.5

771.5

Creek

DEPTH PROFILE

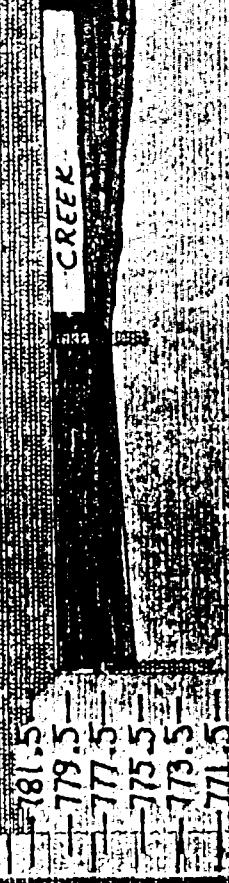
STATION 3 The transect criterion is 5.0

11 15 19

TRANSECT 3

22 13 5

Active Lists: None
Transects now in effect:
Two Color
Bobbins



The Two-color criterion is 10.0

19

15

11

7

3



The Two-color criterion is 25.0

19

15

11

7

3

Use the two-color criterion to choose the one that is best.

fitting lists. Note
too where prospects number 100
for polygons

-181.5

-779.5

-777.5

-775.5

-773.5

-771.5

CREEK

The TINNED criterion is 50.0

11

15

19

3

7

11

15

19

The TINNED criterion is 100.0

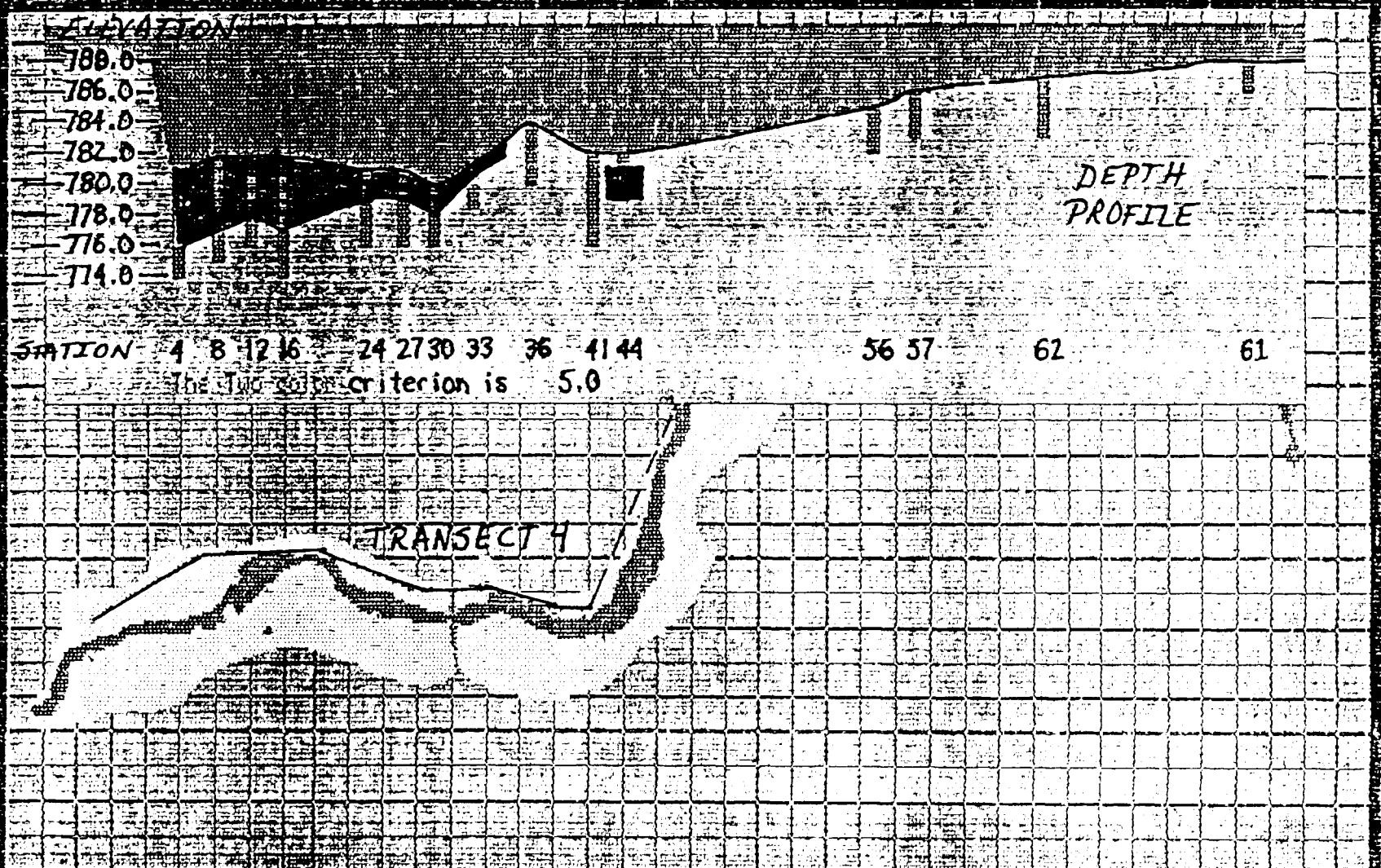
100.0 is better than 50.0

100.0 is better than 50.0

Active Lists: None

Two Color Transects now in effect.

Color polygons



Hit F9 or F10 to erase the top display.

Refugees: None
No patrols, Transsects and interviews

Comments:

788.0
-786.0
-784.0
-782.0
-780.0
-778.0
-776.0
-774.0

4 8 12 16 24 27 30 33 36 41 44

56 57 62

61

The TUS criterion is 10.0

788.0

786.0

784.0

782.0

780.0

-778.0

-776.0

-774.0

4 8 12 16 24 27 30 33 36 41 44

56 57

62

61

criterion is 25.0

Date 9-10-88 Site 10-11-88

Active List: None
Two Color Transects now in effect
Color polygons

788.0

786.0

784.0

782.0

780.0

778.0

776.0

774.0

772.0

4 8 1216 24 2730 33 36 4144
The Two Sections of 1875 = 100.0

61

62

36 37

788.0

786.0

784.0

782.0

780.0

778.0

776.0

774.0

4 8 1216 24 2730 33 36 4144
The Two Sections of 1875 = 100.0

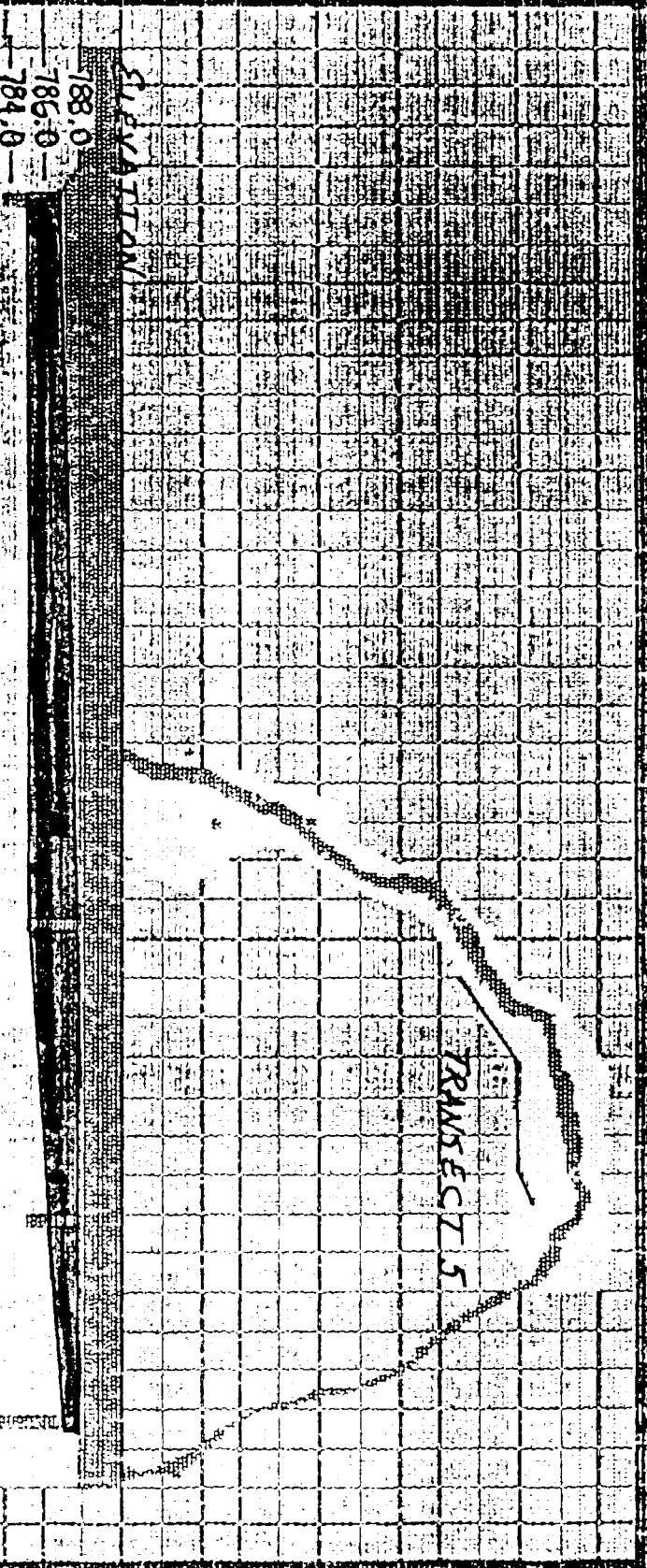
61

62

36 37

Active Lists: None
Trap Block: Transects numbered
Infor polygons

TRANSECT 5



DEPTH
PROFILE

SITE

The Two-sided criterion is

5.0

58

59

60

788.0
—
786.0
—
784.0
—
782.0

SITE 63

Shift-F9 or Shift-F10 to access the bottom display

Active lists: None

Two-color transects now inserted

Color indices:

788.0

786.0

784.0

782.0

63

58

59

60

The Two-color criterion is 10.0

788.0

786.0

784.0

782.0

63

58

59

60

The Two-color criterion is 25.0

PANSECT 3 / 6/74

Hit F2 to erase the top, Shift-F2 to erase the bottom display.

Active Lists: None

Two-Color Transects now in effect.

Color polygons

788.0

786.0

784.0

782.0

63

58

59

60

The Two-color criterion is 50.0

788.0

786.0

784.0

782.0

63

58

59

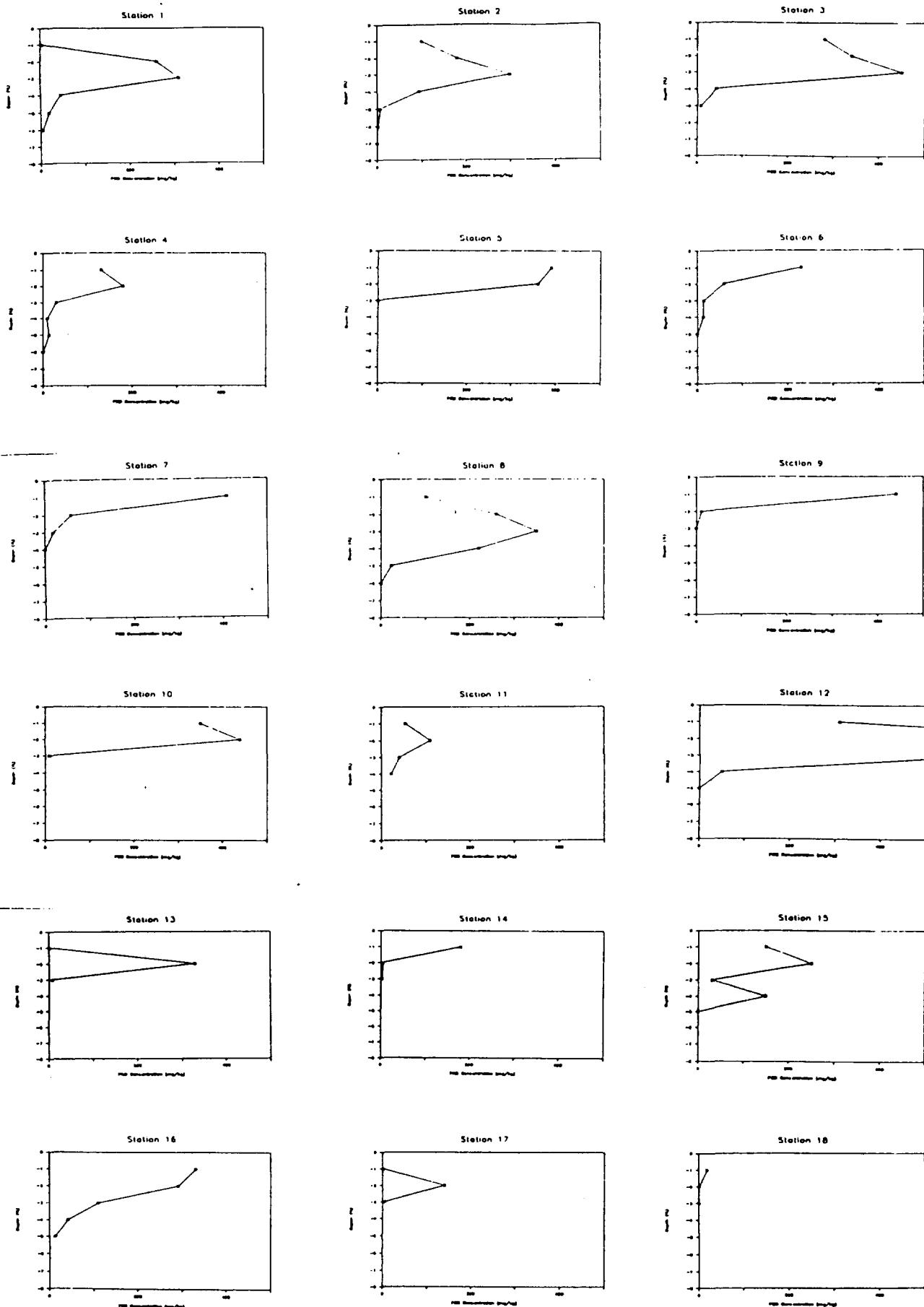
60

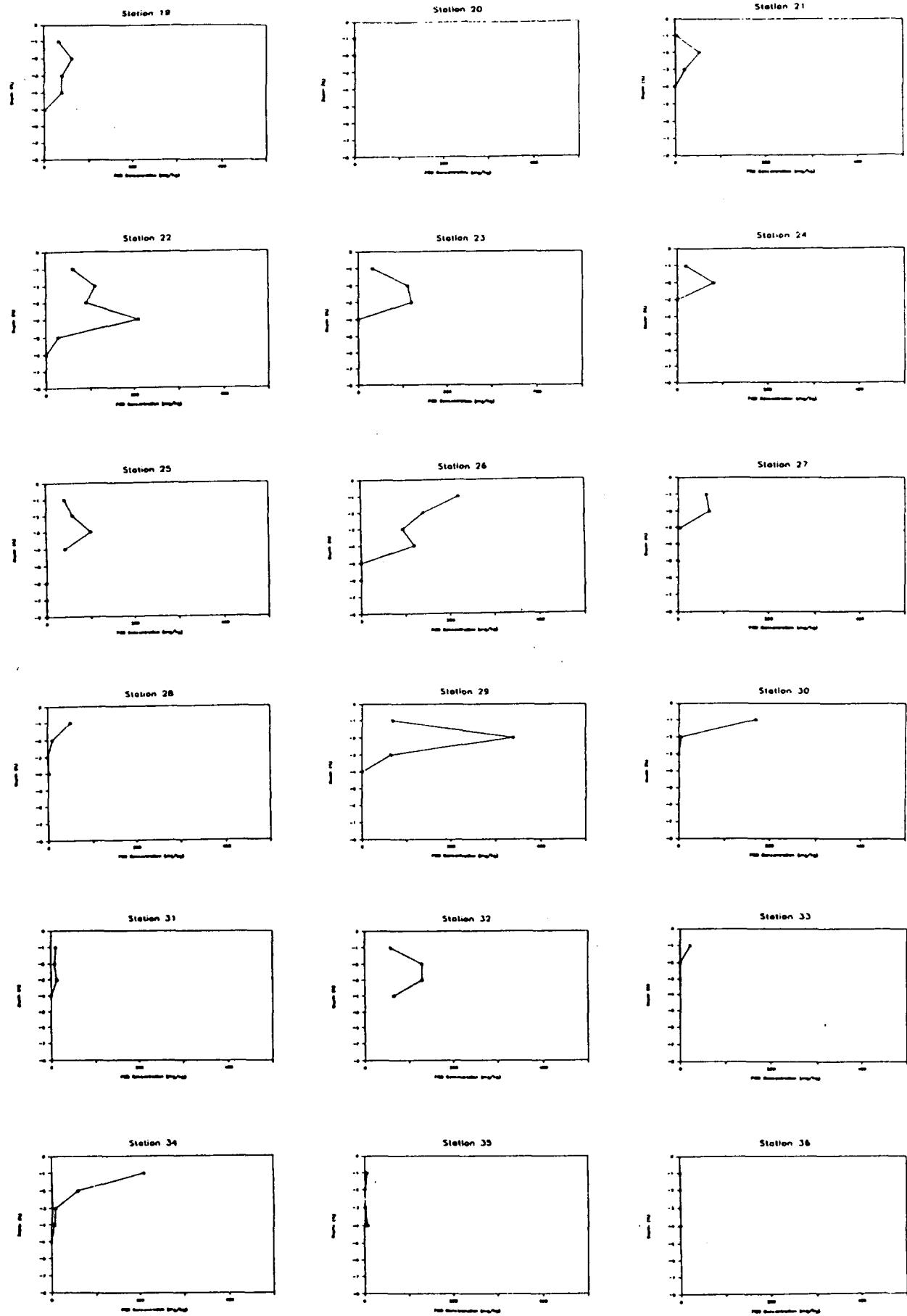
The Two-color criterion is 100.0

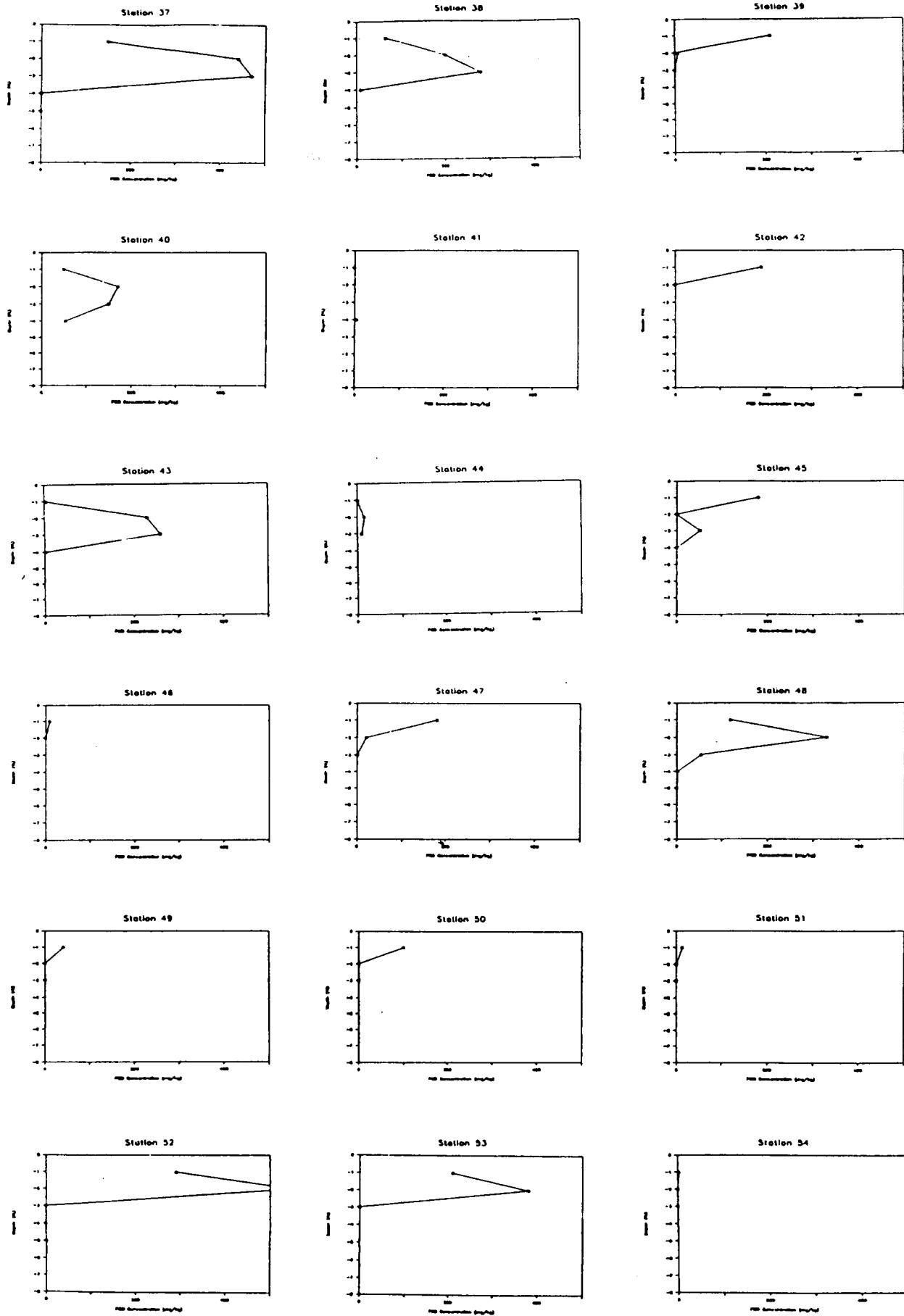
HA 49 to erase the type shift 59 to clear the box to left of 60

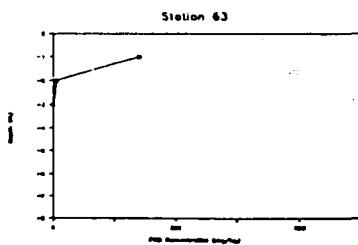
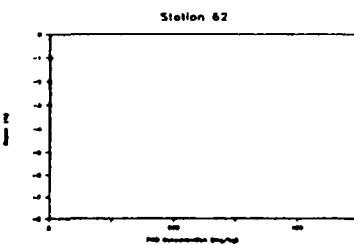
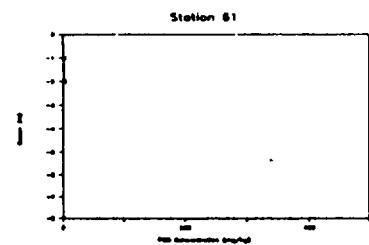
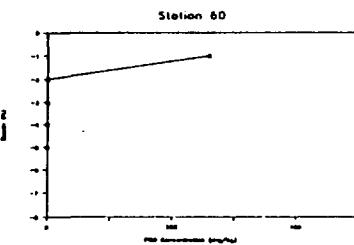
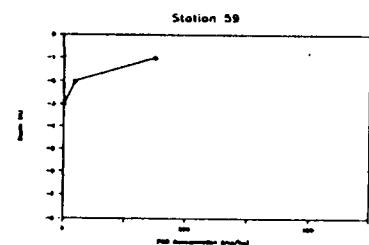
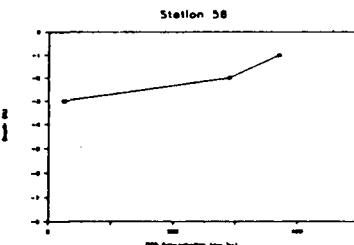
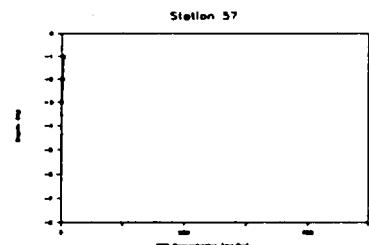
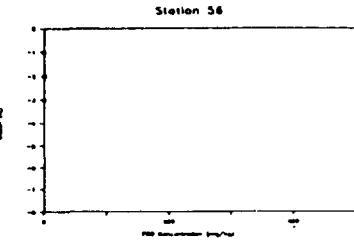
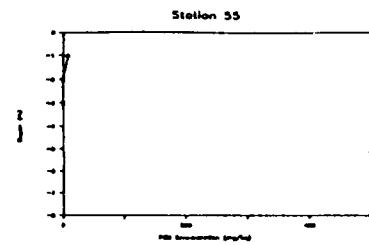
TRANSECT 5 (Concluded)

ATTACHMENT 3 - Graphical Summary of PCB Concentrations vs. Depths









ATTACHMENT 4 - Summary of 1988 Portage Creek Sediment PCB Data

Sample	[PCB] (mg/kg)	Adjusted Dry Dens (g/cc)	Oil/Grease Odor	Soil Characteristics
	(dry wt)			
1-1	3.6	1.193		Brown silt with clay binder
1-2	260	0.587		Dark gray clayey silt
1-3	310	0.515	x	Dark gray/black clayey silt
1-4	44	0.551	xx	Dark gray/black clayey silt w/ OM
1-5	18	0.448	xx	Dark gray/black clayey silt
- 1-6	4.5	0.705	xx	Dark gray/black clayey silt
1-7	--		xx	Dark brown/black peat/clay/silt/trace sand
1-8	--		x	Dark brown/black peat/clay/silt/trace sand
2-1	100	0.609		Brown/gray clayey silt
2-2	180	0.610	x	Gray clayey silt
2-3	300	0.645	xx	Dark gray clayey silt
2-4	94	0.448	xx	Sand/black silt/dark gray clay
- 2-5	6.4	0.664	xxx	Dark gray silty clay
2-6	1.8	0.705	xxx	Dark gray silty clay
2-7	nd	0.481		Dark brown silty clay/OM
3-1	280	0.583		Dark gray/brown silty clay
3-2	340	0.583		Gray clayey silt
3-3	450	0.569	xxx	Dark gray/black silty clay
3-4	43	0.533	xxx	Dark gray/black silty clay
3-5	7.6	0.415	xxx	Black silty clay
3-6	--		xxx	Black silty clay
3-7	--		x	Black silty clay
3-8	--		x	Brown/black peaty sandy silt
4-1	130	0.556		Dark gray silty clay
4-2	180	0.481		Dark gray silty clay
4-3	29	0.569		Dark gray silty clay
4-4	9.4	0.415	xxx	Very dark gray silty clay
4-5	13	0.587	xxx	very dark gray silty clay
4-6	nd	0.664	xxx	very dark gray silty clay
4-7	nd	0.515		Very dark brown/gray sand/silt/OM
5-1	390	0.464		Brown silt / gray silty clay
5-2	360	0.464		Gray silty clay
- 5-3	nd	0.533	xxx	Gray silty clay / Gravel Refusal
5-1	230	0.369		Very dark gray silty clay/OM
5-2	59	0.515	xxx	Very dark gray silty clay/OM
5-3	14	0.339		Very dark gray/black silty clay
- 5-4	13	0.339		Very dark gray/black silty clay
5-5	nd	0.664	xxx	Dark gray silty clay
6-6	--			
6-7	--			Brown clayey peat
7-1	410	0.583		Dark brown silt / gray clayey silt
7-2	58	0.625		Gray clayey silt
- 7-3	18	0.533	xx	Dark gray silty clay
7-4	nd	0.569	x	Very dark gray/black silty clay
7-5	--		x	Very dark gray/black/brown silty clay

Sample	[PCB] (mg/kg) (dry wt)	Adjusted Dry Dens (g/cc)	Oil/Grease Odor	Soil Characteristics	
	====	=====		=====	=====
8-1	100	0.609		Light brown clayey silt / gray clayey silt	
8-2	260	0.610		Gray clayey silt	
8-3	350	0.610		Dark gray silty clay / OM	
8-4	220	0.569	x	Dark gray silty clay	
8-5	23	0.506	x	Dark gray/black peaty silty clay	
- 8-6	nd	0.645	xxx	Dark gray silty clay	
8-7	--			Very dark gray silty clay/sand/peat	
9-1	440	0.296		Very dark brown to black silt & peat	
9-2	11	0.354		Gray silty clay	
9-3	nd	0.498	xx	Dark gray silty clay/gravel	
9-4	--		x	Black peaty silty clay / m/c sand & gravel	
10-1	350	0.530		Dark brown silt / gray clayey silt	
10-2	440	0.530		Dark gray silty clay	
- 10-3	8.7	0.384	xx	Dark gray silty clay / black peaty silt	
10-4	--		xx	Black peaty silt	
10-5	--			Gray clayey silt / sand	
11-1	54	0.530		Brown/dark gray clayey silt	
11-2	110	0.530		M/C sand, F/M gravel / gray clayey silt	
11-3	40	0.530	xx	Dark gray silty clay / OM	
- 11-4	22	0.481	xx	Dark gray silty clay / OM	
11-5	--		x	Dark gray silty clay	
11-6	--			Very dark gray/black silty clay / sand & peat	
12-1	310	0.509		Light brown/gray silt/clay	
12-2	1000	0.569		Gray silty clay / OM	
12-3	610	0.645	xx	Dark gray silty clay / OM	
12-4	50	0.533	xx	Dark gray silty clay / OM	
- 12-5	nd	0.569	xx	Dark gray silty clay / OM	
12-6	--		xx	Very dark brown peat/fixed lam.	
13-1	1.8	0.609		Very dark brown/black F/C sand gravel, coal	
13-2	330	0.747		Gray silty clay	
- 13-3	7.5	0.400	x	Dark gray silty clay/sand	
13-4	--			Dark gray silty clay/peaty sand	
14-1	180	0.556		Brown/gray clayey silt	
- 14-2	5.5	0.569		Dark brown/gray topsoil / OM	
14-3	3.7	0.551	xx	Dark gray silty clay / gravel refusal	
15-1	150	0.663		Brown/gray clayey silt	
15-2	250	0.663		Blue gray clayey silt	
15-3	31	0.662	xx	Blue gray clayey silt	
15-4	150	0.551	xx	Very dark gray/black silty clay	
- 15-5	nd	0.726	x	Very dark gray/black silty clay	
15-6	--			Very dark gray/black silty clay /OM/peat	
16-1	330	0.424		Brown/dark gray silt/silty clay	
16-2	290	0.369		Gray clayey silt	
16-3	110	0.431	xx	Gray clayey silt / dark gray silty clay	

Sample	[PCB] (mg/kg) (dry wt)	Adjusted Dry Dens (g/cc)	Oil/Grease Odor	Soil Characteristics	
16-4	42	0.464	xx	Dark gray silty clay	
- 16-5	13	0.369		Black silty clay/OM	
16-6	--		xx	Gray silty clay	
16-7	--		xx	Gray silty clay	
16-8	--			Gray silty clay / black silty C sand, gravel	
17-1	1.9	1.590		Black coal slag / brown M sand	
- 17-2	140	0.663		Gray clayey silt / OM	
- 17-3	5.1	0.662		Gray brown silty clay	
17-4	--			Light brown M/C sand	
- 18-1	19	0.530		Dark brown clayey silt/gray brown silty clay	
18-2	1.1	0.530	xx	Gray silty clay	
18-3	1.4	0.533	xx	Gray/black silty clay	
18-4	--		xx	Black peaty silt / gravel refusal	
19-1	33	0.636		Brown silt / OM / gray silt	
19-2	62	0.625		Light gray silt	
19-3	39	0.551	xx	Gray clayey silt	
19-4	40	0.569	xx	Gray clayey silt	
- 19-5	2.4	0.747	xx	Black coarse sand / gray white silty clay	
19-6	--			Gray brown silt / OM / gravel / peaty sand	
- 20-1	nd	1.590		Dark brown/black silty sand	
20-2	nd	1.590		brown M/C sand	
20-3	--			Gray black silty sand	
21-1	3.6	0.606		Brown/gray clay & silt	
21-2	53	0.625	xxx	Dark gray silty clay	
21-3	20	0.533	xxx	Dark gray silty clay	
- 21-4	nd	0.705	xx	Gray silty clay/white layers	
21-5	--		xxx	Very dark gray/black silty clay	
21-6	--			Black peat/sand/gravel	
22-1	61	0.606		Dark gray silt/brown sandy silt/clayey silt	
22-2	110	0.533		Light brown/gray silt	
22-3	90	0.533	xx	Dark gray silty clay	
22-4	210	0.551		Dark gray silty clay	
22-5	.27	0.705		Black silty clay/sand	
- 22-6	nd	0.587	xxx	Black silty clay	
22-7	--		xxx	Black silt/silty clay	
22-8	--			Feat	
23-1	32	0.551		Topsoil / gray clayey silt	
23-2	110	0.705		Gray clayey silt/OM	
- 23-3	120	0.515		Gray/dark gray clayey silt	
23-4	nd	0.587	xxx	Dark gray clayey silt	
23-5	--		x	Gray/black silty clay	
23-6	--			Gray black silty clay/flood laminae	
24-1	19	0.636		Gray brown silt	
- 24-2	80	0.636		Dark brown silt	

Sample	[PCB] (mg/kg) (dry wt)	Adjusted Dry Dens (g/cc)	Oil/Grease	Soil Characteristics	
				Odor	
24-3	nd	0.645	xx	dark gray clayey silt	
24-4	--		xx	gray clayey silt	
24-5	--			Dark brown silty peat	
24-a1	--			Dark brown silt	
24-a2	--			Dark brown silt	
25-1	41	0.551		Gray clayey silt	
25-2	40	0.533		Silt/clay	
25-3	36	0.424	xx	Gray clay/silt	
- 25-4	38	0.498		Gray/black clayey silt	
25-5			xx	Gray/black clayey silt	
25-6	39	0.515		Clayey silt/OM	
25-7	43	0.587		White clay laminae	
25-8	23	0.268		Peat/sand	
26-1	220	0.498		Dark brown silt/light gray silt	
26-2	140	0.481		Light gray silt	
26-3	94	0.431		Light gray silt/clayey silt	
26-4	120	0.533	xx	Light gray clayey silt/silty clay	
26-5	nd	0.587	xx	Gray silty clay	
- 26-6	nd	0.481		Dark brown silty clay	
26-7	--			Dark brown silty clay / gravel refusal	
27-1	62	0.556		Topsoil/black clayey silt	
- 27-2	68	0.551		Gray clayey silt/sand	
27-3a	5	0.498	xx	Dark gray silty clay	
27-3b	nd	0.498	xx	Dark gray silty clay	
27-4	nd	0.515		Dark gray silty clay	
27-5	nd	0.836		Black peat	
28-1	50	0.533		Dark brown silt/sand/pulp	
- 28-2	10	0.448		Light brown sand/pulp	
28-3	nd	1.718	xx	Dark gray coarse sand/coal	
28-4	2.6	0.791		Sand/silty clay laminae	
28-5	--		xx	Light gray clay	
28-6	--		xx	Very dark gray silty clay	
28-7	--		xx	Very dark gray clayey silt	
28-8	--			Black silty sand	
29-1	69	0.556		Brown peaty silt	
29-2	340	0.551		Gray/brown clayey silt/sand	
29-3	65	0.481		Gray silt	
- 29-4	nd	0.515	xx	Gray clayey silt	
29-5	--		xx	Dark gray silty clay / gravel refusal	
30-1	170	0.636		Gray clayey silt/brown silt/sand	
- 30-2	5.4	0.645	xx	Dark gray clayey silt	
30-3	nd	0.569	xx	Dark gray clayey silt	
30-4	--			Very dark brown peaty silt	
31-1	11	0.533		Brown clayey silt/pulp	
31-2	8	0.448		Brown silt/pulp/F/M sand	

Sample	[PCB] (mg/kg)	Adjusted Dry Dens (dry wt)	Oil/Grease (g/cc)	Odor	Soil Characteristics
	=====	=====	=====	=====	=====
- 31-3	13	0.606			Dark gray silty clay/white pulp
31-4	nd	1.064			White clay
31-5	--				White clay
31-6	--		xx		Dark gray silty clay
31-7a	--				Gray clay
31-7b	--				Peat
32-1	59	0.424			Dark brown/gray silt
32-2	130	0.415			Brown sand/silt/pulp
32-3	130	0.431	xx		Gray F/C sand / pulp
- 32-4	65	0.364	xx		Gray/brown F sand/pulp laminae
32-5	--				White clay/peat/refusal
- 33-1	22	0.556			Gray brown silt
33-2	nd	0.498	xx		Gray silt/silty clay
33-3	nd	0.551			Gray silty clay/ peat
34-1	210	0.498			Loose peat & clay
34-2	58	0.464			Wet peat & clay
34-3	7.4	0.325	xx		Black peat/Dm/gray clay
- 34-4	6.8	0.384			Dark gray clay/Dm
34-5	nd	0.296			Dark gray clay
34-6					Dark gray clay
34-7					Dark gray clay
34-8					Dark gray clay
34-9					Dark gray clay
34-10					Dark gray clay
34-11	nd	0.685			Dark gray clay / peat and sand
35-1	5.2	0.814			Brown silt/ M/C sand
35-2	nd	1.634			Dark gray sand / silt
35-3	nd	1.594	xx		Dark gray sand / silt
- 35-4	6.5	1.594	xx		Dark gray sand / silt
35-5	--		xx		Dark gray silt
35-6					Dark gray silt
35-7					Dark gray silt
35-8	--				Dark brown peat/ gray sand
36-1	1.2	0.795			Gray/black clayey silt
36-2	nd	0.795			Mottled gray clayey silt
36-3	nd	0.791	xx		Mottled gray clayey silt/ dark gray silt
36-4	nd	1.120	x		Brown/dark gray clayey silt laminae/gravel re
37-1	150	0.481			Grav/dark gray silty clay
37-2	440	0.431	xx		Gray/dark gray silty clay
37-3	470	0.400	xx		Gray/dark gray silty clay
37-4a	--				Light gray/black silty clay
37-4b	nd	0.415			Dark gray silty clay
- 37-5	nd	0.400			Dark gray silty clay
37-6	--				Dark gray silty clay
38-1	64	0.663			Gray /white/ brown clayey silt

Sample	[PCB] (mg/kg)	Adjusted Dry Dens (g/cc)	Oil/Grease Odor	Soil Characteristics
	(dry wt)	====		=====
38-2	200	0.662		Gray clayey silt
38-3	280	0.645		Dark gray silty clay
- 38-4	9.3	0.369		Black silty peat
38-5a	--		xx	Gray silty clay
38-5b	--			Black silty peat
38-6	--			Black silty peat / gray clay lens
38-7	--			Black peaty silt / sand
39-1	210	0.415		Black silty clay
39-2a	--			Black silty clay
- 39-2b	6.7	0.645		Dark gray silty clay
39-3	nd	0.498	x	Gray/brown silty clay
39-4	--			Gray/brown silty clay
39-5	--			Sand/peat/gray brown silty clay laminae
39-6	--			Gray brown sand
40-1	49	0.663		Brown/gray silt
40-2	170	0.662	xx	Green/gray clayey silt
40-3	150	0.685	xx	Green/gray clayey silt
- 40-4	53	0.533		Light gray silty clay
40-5	--			Black peaty silt
40-6	--			Green/gray silty sand/refusal
41-1	nd	0.498		Brown/very dark gray silty sand
41-2				
41-3				
41-4	4.9	1.407	xx	Sand/silt flood laminae
41-5	--			Sand/silt
41-6	--			Dark brown silty peat
42-1	190	0.446		Gray silt
- 42-2	nd	0.203		Black silty peat
42-3	--			Dark brown silty peat
43-1	3.5	0.583		Brown clayey silt
43-2	230	0.587		Gray/brown clayey silt
- 43-3	260	0.481		Gray/dark gray clayey silt
43-4	2.1	0.325		Dark gray clayey silt/ black peat
44-1	1.4	1.241		Brown silty sand
44-2	16	1.338	xx	Very dark gray M/C sand / silt
- 44-3	9.4	1.517	xx	Very dark gray M/C sand / silt
45-1	180	0.551		Brown silty peat/ gray silty clay
45-2	nd	0.384	xx	Dark brown silty peat
- 45-3	52	0.606		Gray silt
45-4	nd	0.533		Dark gray brown clayey silt/peat
45-5	--			Black silty sand/peat
- 46-1	8.9	0.339		Gray brown peaty silt
46-2	nd	0.339		Black/dark brown peat to 4 ft/ sand refusal

Sample	[PCB] (mg/kg) (dry wt)	Adjusted Dry Dens (g/cc)	Oil/Grease Odor	Soil Characteristics
47-1	180	0.310		Brown peat / gray peaty silt
- 47-2	20	0.461		Gray peaty silt
47-3	nd	0.496		Dark gray brown/black silty peat
47-4	--			Black silty peat
48-1	120	0.583		Brown clayey peat/ grey clayey silt
48-2	330	0.569		Gray clayey silt
- 48-3	54	0.481		Gray clayey silt/OM
48-4	2	0.431	x	Dark gray silty clay
48-5	nd	0.606		Dark gray clayey silt/sand/OM
48-6				
48-7.5	nd	0.255		Very dark brown peat
- 49-1	41	0.551		Gray/black/dark brown silt
49-2	nd	0.431		Black silty peat
49-3	nd	0.625	xx	Gray silty clay
49-4	--			Light gray F/M sand/peat laminae
49-5	--			Gray M sand
- 50-1	100	0.530		Orange/brown/gray silt
50-2	nd	0.448	xx	Gray silt
50-3	nd	0.664	xx	Gray silt
50-4	--			Black peaty silt/sand/peat
- 51-1	13	0.415		Boring Log Not Available
51-2	nd	0.354		
51-3	nd	0.705		
51-4	--			
51-5	--			
- 52-1	290	0.498		Gray silty clay
- 52-2	550	0.606		Gray silty clay
52-3	nd	0.551		Gray/black silty clay/OM
52-4	nd	0.415		Gray/black silty clay/OM
52-5	nd	1.092		Very dark brown/black peat
53-1	210	0.448		Gray organic silt
- 53-2	380	0.431	xx	Gray/black silt laminae
53-3	nd	0.431		Very dark gray/brown OM silt
53-4	--			Very dark gray/brown OM silt
53-5	--			Very dark gray/brown OM silt
53-6	--			Very dark brown peat
- 54-1	2.5	0.533		Gray/brown clayey silt
54-2	nd	0.400	xx	Dark brown clayey silt
54-3	nd	0.448	x	Gray clayey silt
54-4	--			Gray clayey silt
54-5	--			Very dark gray/brown clayey silt
54-6	--			Gray M sand/ pebbles
54-7	--			
- 55-1	7.9	0.515	xx	Dark gray/brown silt/gray clayey silt

Sample	[PCB] (mg/kg)	Adjusted Dry Dens (dry wt)	Oil/Grease (g/cc)	Odor	Soil Characteristics
	====	=====	=====	=====	=====
55-2	nd	0.587	xx		Dark gray clayey silt
55-3	nd	0.481	x		Dark brown clayey silt/OM
55-5					Gray/brown silty F/C sand
55-6	--				Very dark brown peat
56-1	nd	0.791			Very dark brown silt/gray silt
56-2	nd	0.791			Gray silt
56-3	nd	0.685	xx		Gray silt
56-4	--				F/C sand / peat flood laminae
56-5	--				F/C sand / peat flood laminae
57-1	3.6	0.296			Black silty peat
57-2	2	0.448	xx		Dark gray clayey silt
57-3	nd	0.587	xx		Gray brown silty clay
57-4	--				Gray brown silty clay
57-5	--				Gray brown clayey silt/sand/gravel/peat
58-1	370	0.663			Gray silt
58-2	290	0.663			Gray silt
58-3	25	0.662			Gray F/C sand / pebbles
59-1	150	0.530			Red brown silt/ gray silt
59-2	18	0.431			Black F sand/silt/peat
59-3	nd	0.567			Gray F/M sand/silt laminae
60-1	260	0.530			Brown silty clay/ blue gray clayey silt
60-2	nd	0.325	xx		Blue gray silty clay/black peat
60-3	nd	0.515			Gray brown F/M sand / peat / gray clay
60-4	nd	0.705			Light gray brown sand / black peat
60-5	nd	0.415			Very dark brown/black peat
61-1	2.6	0.663			Dark brown silt/ gray brown silty sand
61-2	3.3	1.336			Coarse sand/ refusal
62-1	1.3	0.530			Brown silt/dark gray silt
62-2	nd	0.400	x		Gray silt
62-3	nd	0.769	x		Dark gray clayey silt/coarse sand/refusal
63-1	140	0.663			Gray/brown silt
63-2	5.8	0.663			Gray brown silt
63-3	nd	0.685			Dark gray brown silt/sand/gravel refusal
Total Number		148.356			
Average		247.000			
		0.601			